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MAGAZINE

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VOLUME XX

PITTSBURGH, PA., MAY 1946

NUMBER 1



SONG OF DEBORAH BY JANET DE COUX  
Limestone (1941)

Awarded the George D. Widener Memorial Medal  
Pennsylvania Academy of the Fine Arts, 1942

(See Page 3)

## CARNEGIE MAGAZINE

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### OFFICE OF THE PRESIDENT OF CARNEGIE INSTITUTE

WILLIAM FREW, Editor  
JEANNETTE F. SENEFF, Editorial Assistant

VOLUME XX

NUMBER 1

MAY 1946

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### ODE TO SHAKESPEARE

O Shakespeare! On this joyous natal day  
We come with garland crown to own thy sway.  
Thou art not dead—thou canst not ever die—  
Thy mighty spirit, ranging earth and sky,  
And seeking life eternal for its part,  
Attains its heaven in the human heart.  
Around the world we hear thy great voice roll—  
Thy song the fitful passions of the soul.

The years fly past, the ages fall behind,  
Yet still is thine the empire of the mind;  
For like a god that would his race endower,  
Thou sittest there in majesty and power.  
Then come we here, the happy mission ours  
To hail thy name and gird thy brow with flowers.  
O Shakespeare! Give thy listening ear to me!  
My flowers—and my heart—I give to thee!

—SAMUEL HARDEN CHURCH

The late Samuel Harden Church, president of the Carnegie Institute from 1914 until his death on October 11, 1943, was a devoted student of the Bard of Avon.

Shakespeare's birthday, April 23, was formerly marked at the Carnegie Institute with a ceremony during which this ode was read.

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Janet de Coux Sculpture  
April 4—May 12

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Wassily Kandinsky (1866-1944)  
Memorial Exhibition  
April 11—May 12

\* \* \*

William Henry Singer, Jr. (1868-1943)  
Memorial Exhibition  
April 25—May 26

\* \* \*

Arts and Crafts by High School Students  
Annual National Exhibition  
Auspices of The Scholastic  
May 12—June 2

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"The New Spirit"—  
Work by Le Corbusier  
May 12—June 2

\* \* \*

Documentary Paintings  
Collection of the Standard Oil Company  
May 16—June 16

### MUSEUM

The Atlantic Walrus Exhibit,  
largest group in the Museum, on display  
in the Hall of North American Mammals

\* \* \*

Wade Collection of hand-woven coverlets  
lent by Mrs. George S. Macrum,  
currently on display

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Organ Recitals by Marshall Bidwell  
Saturdays at 8:15 P.M.  
Sundays at 4:00 P.M.

MAY

11—Peabody High School A Cappella Choir  
Florence L. Shute, director  
18—Westminster College A Cappella Choir  
Charles Seegal, director

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beginning May 5

## JANET DE COUX, SCULPTOR

BY WALTER READ HOVEY

Head, Department of Fine Arts, University of Pittsburgh

ON entering the gallery containing the sculptured work of Janet de Coux, one encounters an atmosphere charged with thought. It is a thought which questions but does not dispute. Always noble, it ranges from realistic humor to spiritual transcendence. And somehow the pervasive presence of the form carries conviction.

Sculpture, an art of space and volume, belongs to a thoughtful age. Its forceful simplicity conveys essential values. Not that decorative sculpture is unimportant, or whimsy inappropriate to the medium, but great sculpture does not concern itself with the vagaries of taste. It may have movement or design expressed in the conventions of a period. It must have that vital energy which is life itself.

With some such thoughts as these, the work of Janet de Coux takes on significance. The titles, *Doubting Thomas*, *Savonarola*, *Sarah and Abraham—Annunciation*, reveal universal values. She is at her best when the concept can be focused on a personality. Thus the Old Testament characters which have the coarseness of human clay and at the same time the vision of the Christian God are better dramatized than the rarefied concept of the Virgin or a Christian Saint. Miss de Coux becomes almost mechanical in a personification of the idea of War and Peace. Yet *The Prophet*, an expressionistic figure in



PORTRAIT PLAQUE OF SARAH  
Marble with Bronze Frame (1931)  
Lent by Robert de Coux

plaster, has a magnificent sweep of line suggesting in silhouette the prophet type.

This latter figure is as far as she has ventured in that contemporary vogue which aims more at relationship between medium and design than emotional reality. Miss de Coux is too keen an observer of individuals, too expert in modeling contours, to resort to mannerism for

power. Nevertheless there is a suggestion of this approach in *The Prophet*. Certainly the distortion is effective as a release of energy but it seems to belong to a phase of taste which already is passing.

Just as it is interesting to see the sculptured work of a painter—one thinks of Degas, Daumier, or Picasso—so the drawings of a sculptor are important and valuable. The exhibition is enriched by fourteen drawings in ink with brush and crayon. There are three additional drawings on slate. While these have been handled with restraint, as sculpture it might be questioned whether more advantage should have been taken of what might be called the painterly qualities of line and tone inherent in this material. Modern expression tends toward an increasing awareness of the unity of the arts, separated into categories of architecture, painting, and sculpture only by their use and adaptability of textures. The two small drawings on slate, *The Prodigal Son* and

*Saint Paul*, suggest sculpture only in the sense of permanence in the medium. Of course they are lovely in tone. The fluid outline for the head and decorative treatment of the hair in the large panel called *Water* is intriguing, but as a whole, the piece is less successful. It is large enough for some architectural use.

The esthetics of architectural sculpture must depend on the thought conveyed by the building itself. The visitor to this exhibition would have appreciated enlarged photographs showing the two pieces, *Manhasset Madonna* and *Saint Angela and a Young Girl*, in position. These are colossal in scale and to the layman the white, chalky plaster

is distracting. Nevertheless they convey a dignity in their massive simplicity which is all too rare in much modern work. Whereas one may admire the present tendency to compose forms about space and make the nothingness of air count in the design, it often leads to unintelligibility. The original forms of Henry Moore possess elemental force; these more representational forms do not eliminate this force though tempered by religion and education. The Madonna is to be executed in black granite and erected in front of *Saint Mary's Church* at Manhasset, Long Island. *Saint Angela and a Young Girl* rests just above the door jamb to the library entrance at the College of New Rochelle, New York. That is to say, it is not centered over the doorway and thereby gains in attention through the search for equilibrium.

This quality of occult balance by which movement is created in repose, or better, through which the law of inertia seems to be just getting underway, is superbly handled. It is by some such use of rhythm and poise that one creates the emotion of music in stone. The *Song of Deborah* accomplishes this feat. At last sculpture in freed from the superficially decorative feminine type. It has been a long and difficult task championed among others by Maillol and Lachaise. Miss de Coux accomplishes it as though intuitively. She avoids the conscious idealization of the one, the primitive overemphasis on female anatomy of the other. Deborah has become the eternal woman, creator of life, a prophetess who rises to praise the Lord in song.

No less lively but less significant in mood is the terra-cotta, *Ruth and Naomi*. The moment represented is after the supplication of Ruth so beautifully expressed in the Bible, "Intreat me not to leave thee, or to return from following after thee, for whither thou goest I will go and where thou lodgest I will lodge." The two are shown hastening on to Bethlehem. Nothing could arrest their progress, yet there is no trick of sluttishness.



SARAH AND ABRAHAM—ANNUNCIATION  
Limestone (1945)

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tering drapery nor dramatic gesture. It is like the compelling unseen force of fate which indeed is manifested in these women whose destiny was to carry on the great lineage of the tribe of Jesse.

A *Pieta*, also in terra cotta, conveys not only emotional restraint but a majestic and monumental spirit in a somewhat fragile material of small proportions. To be creative in an established theme of religious import is usually to lose the profound basis of the content. It is easy to lapse into the sensational when treating such a subject. Here the grouping of the figures is unusual. One of the Marys stands and looks down on the prostrate figure of Christ supported between the other two. This triangular arrangement adds to the sense of fortitude, while the attention given to the design as seen from all sides heightens the pathos.

Two pieces in relief call for special mention, a bronze medal, 25th Issue of the Society of Medalists, and a *Portrait Plaque of Sarah Campbell de Coux* done in marble with a sculptured bronze frame. The motto for the medal is, "Go to the Ant, Thou Sluggard." It is a fine bit of design in which a slothful figure is richly modeled and well related to the circular form. On the plaque a precious babe subtly emerges from the white marble suggesting the refined taste of the early renaissance. The appropriate frame polished like gold calls attention to this priceless possession. In their decorative aspects these pieces greatly add to the attainment of Miss de Coux.

Qualities of character and portraiture may seem more significant. Perhaps it was but a casual interest that prompted the plaster group, *Business—Sketch*, but its inclusion in the exhibition reveals humor and gives variety. The talent for this sort of observation may not be so very different from the insight required to model the imaginary features of historic characters such as the *Savonarola* or *Doubting Thomas*. There are two heads of *Aaron* displayed—the one a tiny bronze, the other a large plaster model. Their forceful rendering would seem to



JOHN LINDSAY

Bronze (1939)

be the result of character analysis akin to the genre group just mentioned. While genre has questionable sculptural values, the ability to assimilate the outward appearance of things in terms of inner meaning is of its very essence. Thus we arrive at portraiture.

The exhibition contains four portrait heads. They are close to life yet certainly more than that. As our society tends to emphasize individuals less and ideas more, portraiture takes on more abstract and universal qualities. Miss de Coux prefers to make the specific stand for a type. The fine head of *John Lindsay*, a negro done in bronze, has interested her for its detail; the more decorative *Head of Barbara*, executed in cast stone, for its contours. There is an authoritative appropriateness in the handling of each.

But the importance of the achievement of Miss de Coux does not rest upon a pleasant choice of medium or on incidental requisites to the sculptor's art. She has had long and thorough training

from her early work under J. Bailey Ellis to contacts with such men as Jennewein and Fraser. From 1942-45 she was resident instructor at the Cranbrook Academy of Art. It is rather her sincerity, her breadth of concept, her understanding of sculpture as a force, upon which rests her promise of becoming the outstanding woman sculptor of America. There has already been much national recognition. First came a Guggenheim award, then in 1942 the Widener Medal awarded for the most meritorious work in sculpture by an American citizen and shown in the

annual exhibition of The Pennsylvania Academy of Fine Arts. This was received for the *Song of Deborah*. In 1943 she was awarded the Lindsay Memorial prize by the National Sculpture Society, and in 1944 the American Academy of Arts and Letters and the American Institute of Arts and Letters were prompted to give her one thousand dollars to continue her creative work.

If Miss de Coux has not done a large amount of work, it is perhaps because she is not easily satisfied. The world has need of the wholesome, tender, and enduring pieces that she can create.

## WHO KILLED GOLIATH?

By GLADYS SCHMITT

*Assistant Professor, English Department, Carnegie Institute of Technology*



I HONESTLY believe that David of Bethlehem was not the slayer of Goliath. It was certainly no mere caprice and no wish for the sort of notoriety that covers the top of one's desk with angry letters which made

me determine to give the victory over Goliah to Elhanan in my book *David the King*. From the very beginning, when I was working merely with the two Books of Samuel, it seemed to me that there were certain inconsistencies in that part of the story: it was strange that a famous giant-killer would have to be reintroduced to Saul as though he were a mere nobody who had wandered in from the hills, with nothing to recommend him to royal attention save a sweet voice and a lively lute. It seemed strange, too, that such an outstanding lad shouldn't have gained at once some stature in the army, and that he should not have been sought out at once by that most generous and gregarious of

Miss Schmitt's *David the King*, the March selection of the Literary Guild, seems to have raised a serious and tradition-defying question as to who killed Goliath. The Editor of CARNEGIE MAGAZINE was anxious to know how Miss Schmitt arrived at her conclusion, and this article has been written in response to a request that she give her side of the case.

all heroes—Jonathan. Furthermore, it was a little upsetting to discover on closer reading that Samuel II 21:19 states clearly and with conviction that "Elhanan, the son of Jaare-oregim the Bethlehemite, slew Goliath the Gittite (i.e., the man of Gath) the staff of whose spear was like a weaver's beam."

My further reference—and I consulted some eighty sources in the course of my study—led me to believe that this particular victory had been assigned to the son of Jesse by legend rather than by truth. Any Biblical scholar will know that there are certain difficulties involved in working with Biblical material. The two Books of Samuel are not, for instance, the product of a single writer, but the accrued wealth of hundreds of years. At least three versions—three separate stories—can be clearly identified as existing side by side in these two Books. One of them, known

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as the "J" or Jahvist version because the author has used the name "Jahveh" exclusively to refer to God, is believed to have been written within David's lifetime or at the most not more than a hundred years after his death. To this narrative, which David himself may have seen and approved and which was written at some time between 950 and 850 B.C., were added two other, later threads: one called the Elohist, written perhaps about 750 B.C., long after the death of David, and the other, known as the Deuteronomic, added by the priestly class after the Exile, as late as 521 B.C.

This weaving together of three distinctly separate versions of the tale has left certain traces: there are, for example, "doubles," slightly different accounts of the same incident. David goes twice into the camp of Saul and twice refrains from slaying him. Saul twice throws his spear at David. David is involved with two of Saul's daughters, Michal and Merah—but both these names in Hebrew mean "increase."

In all these instances, and in many others, I have used only one of each pair of "doubles." Generally I have used the earlier version rather than the later one. The later versions have, naturally enough, been kinder to David than the material written within the memory of his own and the succeeding generation. The epic process of building a hero had already been set into motion; Samuel was exalted, Saul was degraded and maligned; the House of Kish was censored, and the House of Jesse was forgiven. Naturally, too, the high deeds of the mighty men had begun to cluster around David's name.

The earlier and more sound version of the tale states in II Samuel 21:19 that Elhanan was the giant-killer. I Samuel 17 is, by numerous earmarks of style and language, a much later story, written in the days when memory had exalted David and given the deeds of his fellows to the swelling sum of his glory. The authenticity of II Samuel 21:19 above that of I Samuel 17 is well supported by many references. The

curious may care to consult the article "Goliath" in the *Encyclopaedia Britannica*; it gives a brief account of the matter. Those who wish to look further and are willing to wade through a good deal of frightened and sometimes apologetic statement may care to consult Ewald's long and thorough work on the history of the Jews, H. P. Smith's *Commentary on Samuel I and II*, Augusta Lods' *Israel*, and the article entitled "David" in the *Encyclopaedia Biblica*. I am not the first novelist to have incurred this dilemma and tried to solve it in what seemed to be the most direct and truthful way. Elmer Davis, in his novel *Giant Killer*, also gave the forgotten Elhanan his due.

Answering fan mail would be simpler if one could merely refer the writer to II Samuel 21:19. But one is as likely as not to receive a letter by return post, saying that this verse states that Elhanan "slew the brother of Goliath (and the italics are those of the King James Version) the shaft of whose spear...." The fact is that the words "the brother of" have been inserted into some editions. They were written into the verse, added to the original Hebrew text, by a redactor—some good soul who saw the inconsistency and wished to patch it up as best he could. They appear in italics to indicate that they are added and dubious material; and the Standard American Edition of the King James Version consigns them both to italics and to the foot of the page.

That is the story—a very complicated one. I am sorry, in a way, to have shattered so many illusions concerning David. But it seems regrettable, too, that the man who lifted lyric poetry to a new height in the ancient world, who built a capital in what he considered the very core and center of the world, who learned to live side by side with a variety of nations in plenty and peace, who united the warring tribes of Israel and sought after God all his days should be remembered most often because he laid low a boisterous Philistine with a little stone fished up from a brook.

## PIONEER IN NON-OBJECTIVE PAINTING

BY HILLA REBAY

Director, *The Museum of Non-objective Painting, New York City*

**W**ASSILY KANDINSKY was born in Moscow, December 5, 1866. As a child, he loved to paint. The effects of colors on him were deeply felt. The beauty of the sunset over the cupolas of Moscow and the intensity of color in peasant art, contrasting with the grey vastness of his native country, enlightened his vision. After terminating his law studies at the age of thirty, he was offered a professorship. In refusing it, at this turning point of his life, he made the decision to abandon a safe career and to leave for Munich to study painting. He later recalled this decision as, "Putting a final period to long studies of preceding years."

After two years of painting in Munich he was admitted to the Royal Academy, where he studied under Franz von Stuck. This instruction, however, did

not satisfy him and in 1902 he opened his own art school, which closed two years later when he undertook a four-year series of travels to France, Italy, Tunisia, Belgium, and Holland. Upon his return to Munich, one evening there occurred at dusk the magical incident of his seeing merely the form and tone values in one of his paintings. While not recognizing its subject, he was not only struck by its increased beauty but also by the superfluity of the object in painting, in order to feel its spell. It took him fully two years to crystallize this miraculous discovery. Nevertheless, he still used objective inspiration in the paintings of this period, but only as a structural element, while the organization of form and color values, used for the sake of composition, already dominated these abstractions.

In 1910, Kandinsky wrote his famous book *On the Spiritual in Art*, a theoretical treatise, in which he established the philosophical basis of non-objective painting. The following year he finished and exhibited his first entirely non-objective canvases, which attracted world-wide attention and excited controversies of tremendous import. Between 1914 and 1921 Kandinsky lived in Russia, where he acted in several official artistic capacities. In 1919 he became the director of the Museum of Pictorial Culture in Moscow and, as such, founded the Institute of Artistic Culture for which he wrote the recently published *Culture Plan*. In 1920 he was named professor of art at the University of Moscow. In 1921, also in Moscow, he created the Academy of Artis-



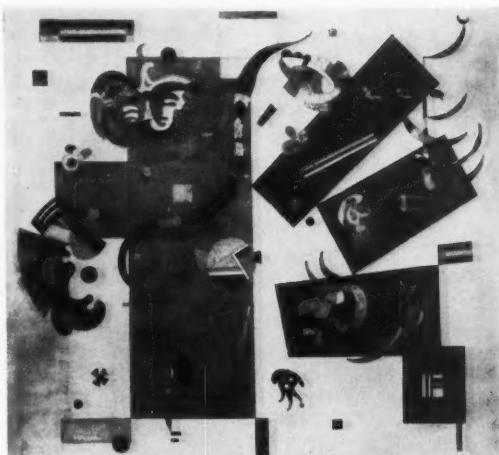
BLUE CIRCLE (1922)  
Lent by Katherine S. Dreier

tic Science, of which he became vice-president.

Later that year Kandinsky returned to Berlin where, at the Wallerstein Gallery, he exhibited his first open-spaced canvases, in which one sees his turning from lyrical organizations of effervescent color expressions to a more dramatic clarification of definite form and space precision. With infinite care he studied the dimension of open-space in contrast to color value and form extension, as well as line direction and the intensity of the point. After 1923 he perfected, with scientific precision, his marvelous presentation of color technique.

He also taught at the well-known Bauhaus, first established in Weimar, later in Dessau, until 1933, when prejudiced authorities ordered its closing. Kandinsky then left for Berlin, but finally, the next year, settled in Paris, where he continued his work until his death, December 13, 1944.

As his last paintings prove, with intense concentration, Kandinsky increasingly refined the precision of balance in the given space of the painting, as the innermost powerful essence of their rhythmic tension. Like every creative painter of our day, he ceased to be satisfied with representation, however artistic, but felt more and more the desire to express his inner life in a cosmic organization. He was, however, the first to proclaim this principle; and when he realized that the musician's incorporeal freedom from earthly inspiration for his art was also the privilege of the painter, he became one of the most violently attacked pioneers. He courageously maintained this conviction, in spite of the all-powerful objective tradition and mass belief. With his God-given freedom in the artistic, esthetic creation of rhythm, he invented the first painting for painting's

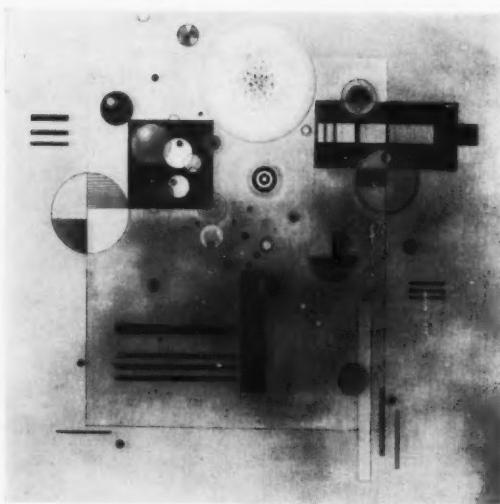


BLUE WORLD (1934)

Lent by The Solomon R. Guggenheim Foundation

sake, and not for the sake of informative make-believe, as had been the ideal of the past. He found that a non-objective painting's rhythmic life, expressing creative invention, can be profound if done by a visionary master. It can also have a strong ordering influence on the observer. This, he found, was denied to representative painting, through its imitative, lifeless limitation. Yet this is equally denied to those schematic, mediocre, condensed patterns by most so-called abstract painters, whose decorations are as far removed from being art as the organ-grinder is from musicianship, or as the scale is from the sonata.

The rhythmic law of constructive counterpoint, contained in a creative masterpiece, sets into motion life itself, through a rhythm displayed between harmonies and the contrasts of color and form, with which the given space is beautified. In order to clarify, for the serious student of painting, the existing counterpoint in the law of correlation, Kandinsky, through intense concentration on these esthetic problems, undertook profound studies, outlined by him in his treatises as well as in his culture programs. He wrote extensively about



SOFT PRESSURE (1931)

Lent by Mrs. E. Zalstem Zalessky

the theoretical and technical elements of this art. These writings offer valuable tools to those who are endowed and eager to express their creative urge. At the same time, such knowledge of counterpoint and technical elements is not at all needed by the layman in order to enjoy this art. Without professional knowledge, all he is expected to do is either to like or dislike the painting, as he would a melody or a flower, which, like all other God-given creations, are equally beyond understanding and which, like art, are simply there to be enjoyed.

Because the non-objective painter reacts intuitively to a superior influence and realization of the universal law, thus enabling him to give his message, this sensitive and prophetic artist of our day has refined his senses to receivership of those invisible, spiritual forces which he intuitively expresses. He then derives with subtle sensibility his visionary inspiration from the spiritual domain which is indestructible and his very own, in the same degree in which he has developed his faculty to receive. Thereafter, his creations develop with a

wealth of variation those visions of beauty, which, controlled by laws of counterpoint, make his artistic message as endlessly alive and original as nature itself.

The artistic expression of our day no longer responds to materialistic objectives; it has advanced to become spiritually creative. No longer must the painter display a lemon to paint the beauty of an intense yellow; or search the sky to contrast it with a lovely blue; nor must he anywhere at all hunt for earthly motives before he is permitted to paint. At will, he can now organize forms and colors into the virgin-white, esthetic

purity of a given space, which is his canvas; so as to enrich its beauty without disturbing its loveliness, he is now free to follow a higher evolution beyond the pretense of make-believe. Unknown to some painters who miss their epoch and are still shackled by the caveman's out-dated urge for reproduction, the freedom of art has become infinite, through the painter's vision of new possibilities and esthetic expressions which are spiritually conceived and of superior value. The eyes of the painter have been liberated to vision, freed from the bonds of imitation and the pretense of a perspective make-believe, of a faked third dimension, to a visionary reality. The non-objective artist is a practical educator, the bearer of joy and a creator who deals with eternity. His painting gradually elevates the onlooker, through pleasurable realization of esthetic refinement, to harmony containing order, which proves satisfying to the soul's need for perfect peace.

The prophetic, immaterialistic ideal of the modern painter proclaims the coming era of spirituality. His reaching

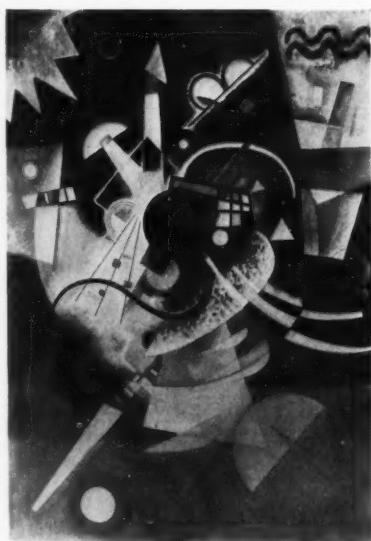
into the absolute emphasizes the subconscious desire of all men to such advance. The increase in material ease of life, which man has accomplished by harnessing invisible forces of electrical waves, rays, or atoms, has freed him now and has given him time with which to direct his aims, to increase his cultural and esthetic expression, and to contact the eternal realities of permanence so close to all and yet so utterly ignored by most.

Non-objective painting helps to free the human soul from materialistic contemplation and brings joy through the perfection of esthetic enlightenment. Therefore, Kandinsky was not only a painter and scientist, but also a prophet of almost religious significance. The ideal of his art was conceived even before the utter illusion of the density of matter had been proved by science, and before the reality of frequencies and invisible forces had opened the imagination of man to unlimited expectations. The profound truth of Kandinsky's theories at once impressed those who

were equally capable of feeling esthetic enjoyment through his paintings and of realizing the importance of Kandinsky's mission at its advent.

Since photography and motion pictures today record all events, situations, or persons for practical or sentimental need, the skill of modern man has been freed from reproduction by hand, thus enabling him to cultivate a higher stage in art expression by following his creative esthetic urge. His eyes have become sensitized to realize the rhythmic life in the span of the in-between—the life that is the essence of a non-objective masterpiece. Such a masterpiece, due to those spiritual qualities, becomes everlastingly appealing in its endless combinations of colors, forms, and contrasts, in their relations to each other or to space. It can be easily observed that each color and design motive is organized in itself, while constantly reacting and playing with its form or color opponent. Thus it brings restful enjoyment which is as peacefully uplifting as the observance of the infinity of the starlit sky. Out of such pleasures emerges the realization of the rhythm which lies in the in-between, realized by following the motives and discovering the meeting points of lines and forms in contrast to a calm, harmonious unit.

Contrary to the static form-idea of painting which prevailed in the past millenniums, where the subjective object was immediately perceived as a whole and graphically recorded by the intellect, always directed objectively earthward, the moving form-idea of today sets into motion the eye in any desired direction of the rhythmic non-objective creation. This cannot be mentally recorded or memorized like objective impressions because it points heavenward, as an expression of infinity. If to some the harmony of order and beauty of these non-objective creative paintings is not immediately obvious or appealing, it gradually becomes evident to anyone permanently exposed to their increasingly realized influence. Through this, the onlooker subconsciously en-



ONE CENTER (1924)

Lent by The Solomon R. Guggenheim Foundation

folds his personal advance towards exactitude and sense for esthetic beauty, finding it immensely enjoyable and useful. Because the objective painting contacts earthly matter only, it cannot cause such spiritual evolution.

To unfold the human soul and lead it into receptivity of cosmic power and joy is the tremendous benefit derived from the non-objective masterpiece, so intensely useful and conceived from the primary essence of creation. In loving Kandinsky's paintings, we assimilate ourselves with expressions of beauty with which he links us to a higher world. Kandinsky's message of non-objectivity is the message of Eternity.

### NATURE CONTEST

**N**EARLY two hundred elementary and high-school boys and girls from southwestern Pennsylvania have registered for the annual Nature Contest on May 11 at Carnegie Museum.

Fifty specimens—plants, animals, mineralogy, and paleontology—will be offered for identification by the younger children in the morning, and one hundred for the high-school students in the afternoon. It is estimated that the elementary-school boys and girls need acquaintance with at least three hundred natural history specimens, and the older, with approximately five hundred, to complete the contest. The prizes will be natural history books, chosen in the field of each prize-winner's particular interest.

### LIBRARY SCHOLARSHIPS

**C**ARNEGIE LIBRARY SCHOOL of Carnegie Institute of Technology will again have available for 1946-47 several competitive scholarships for those college graduates who present outstanding qualifications.

Applications should be sent to Miss Frances H. Kelly, associate director, 4400 Forbes Street, Pittsburgh 13, on or before May 15. Awards will be made on or before July 1.

### MOORHEAD B. HOLLAND

**T**HE Boards of Trustees of the Carnegie Institute and of the Carnegie Institute of Technology desire to record with deep sorrow the death on Friday, April 12, 1946, of their associate Moorhead B. Holland.

Mr. Holland had been a member of the Board since June 25, 1934, and during that time had served as Chairman of the Founder's Day Committee, the Pension Committee, and the Fine Arts Committee, besides being a member of the Advisory Committee. A man of great delicacy of feeling, he was a patron of the arts in the truest sense, being deeply interested both in music and painting. In addition to his service as Chairman of the Fine Arts Committee, a position he held at the time of his death, he was a member of the Boards of Directors of the Pittsburgh Symphony Society and the Pittsburgh Orchestra Association, and was most active in everything connected with the musical life of Pittsburgh.

He had grown up in the tradition of the work of the various Carnegie philanthropies, as his father, the late Dr. William J. Holland, a man of great learning and scientific attainments, was one of the trustees chosen by Mr. Carnegie when the Carnegie Library of Pittsburgh and the Carnegie Institute were founded and served as a trustee until his election as Director of the Carnegie Museum.

It is with a sense of deep loss that the Board of Trustees records the passing of a man who meant so much to the work of the various Carnegie boards and a friend whose wise counsel and interest will be greatly missed.

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"Nature as the inspiration for creative design" was the theme for the demonstration lesson of the Tam O'Shanter on Saturday morning, April 27, in the Carnegie Music Hall.

Easter posters painted by the Palettes were part of the decoration for a party at Deshon General Hospital last month.

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The Index to Volume 19 of CARNEGIE MAGAZINE may still be obtained, gratis, on request.

## WATER SCENES IN MUSIC

BY MARSHALL BIDWELL

*Organist and Director of Music, Carnegie Institute*

Music, of all the arts, is peculiarly fitted to describe impressions of the water, especially of fountains and ocean waves. "No other art can convey the sense of rhythmic life so irresistibly"; no other art can imitate the sound, or rather, the movement of water so realistically. Let us consider those instrumental compositions that have to do with the sea.

There are quite a number of famous sea paintings in symphonic music. Just to mention a few—the *Hebrides* or *Fingal's Cave Overture* of Mendelssohn gives us a graceful picture of a rather calm ocean. In Wagner's *Overture to The Flying Dutchman* we have the sea in a more tragic and turbulent mood: the wind whistles through the rigging and tears at the tattered sails; the waves come crashing over the side. In the *Scheherazade Suite* by Rimsky-Korsakoff, strange birds fly overhead, awful shapes move dimly in the green depths, a short fierce storm rages, and the sea heaves up like a weary giant.

Of the host of tone-painters from Mendelssohn to Debussy, how few, comparatively speaking, have chosen to fix upon pianistic canvases something of the spell of deep waters! Bach and Handel, Haydn and Mozart may have been prevented from composing sea paintings because of the limitations of the harpsichords and spinets of their time. But the nineteenth-and twentieth-century musicians are not hampered by the modern piano with its unlimited possibilities for color effects, sonority, compass, and power. Neither are they checked by formal conventions and styles.

Perhaps it is with composers as with poets and painters: many have sung of the sea, yet few have been able to render a full and eloquent expression of it.

Only a few have "gone the seaward way": Swinburne, Whitman, and Masefield, among masters of poetic speech; Turner, Moore, Waugh, and Mattson, among painters in oil. How few others stand out, prominently, as belonging to the clan of deep waters! The sea is not for all. Some it repels; some it fills with uneasiness, dread, or even terror—not to mention mal de mer! Only those who have an exhilarating passion for the sea can treat this vast and subtle theme with understanding and power.

To be sure, there are many compositions whose titles suggest some particular phase of sea life, as *barcarole* or *gondoliera*, both written in imitation of the songs of Italian boatmen who sing while they work—the *barcarole* perhaps associated with the Bay of Naples, and the *gondoliera* with the canals of Venice. The *barcarole* is characterized by a graceful 6/8 rhythm, suggesting the gliding, swaying boat movement, and a sustained melody, representing the song of the boatman. Rubinstein's beautiful *Barcarole* in G minor is well known to pianists, and another exceptionally fine example is Moszkowski's *Barcarole* in G major. As fine a piece as the latter one is, we find little attempt to paint realistically the Vesuvian Bay or the Venetian lagoons; the canvas does not smell of the salt, nor is it drenched with ocean spray.

The same may be said of certain other compositions bearing sea titles: the Sailor Songs by various composers and such pieces as *St. Francis Walking on the Waves* by Liszt, MacDowell's *A Scottish Tone Picture*, or Schubert's *By the Sea*, in all of which a musical interpretation of the sea provides background for a human being.

Debussy's *La Cathédrale Engloutie* is a descriptive piece which actually tran-



Dr. Bidwell at the console of the four-manual, 126-stop organ in Carnegie Music Hall.

scribes the sea itself. To this composer the sea was a mystical thing of strange visions and voices. By means of a fragmentary melody and a use of old church modes, he succeeds in establishing an atmosphere that is shadowy, floating, kaleidoscopic—an interpretation rather than a photograph.

The same composer's *En Bateau*, of the barcarole type, is far less descriptive than *The Submerged Cathedral*. It has very little sea flavor—perhaps Debussy had fresh water in mind instead of salt—but is a lovely, elusive mood-picture, a fine example of the subjective in musical composition.

In the sea pieces of our American composer Edward MacDowell, we have music which in its magical power of capturing and conveying the ever-changing moods and aspects of the sea matches the poetry of Whitman and Swinburne. MacDowell was keenly sensitive to the natural world and was particularly aware of every phase of the

ocean. He not only responded to the sea with quickness and intensity, but was able to register his impressions of it with a haunting beauty and vividness. What is even more astonishing, he does this in an incredibly small space.

There is almost exhilaration even in the titles, to which the composer adds a motto or a few lines of verse. *From the Depths* is particularly mysterious, beginning with a picture of the sea, calm, but sinister, and working up to power and fury in a storm. *Nauilus* gives us an exquisite suggestion of an uncanny boat trip in quiet water. Also we have the brooding scowl and murk of *Mid-Ocean*, the vast immensity and unplumbed depth of *To the Sea*, the glittering splendor and curious icy clearness of *A Wandering Iceberg*, and the stern, majestic, sonorous *A. D. 1620*.

But let us get away from the taste of salt and touch briefly on "fresh water" compositions, the musical interpretations that parallel Monet's unforget-

table water lilies. There is Debussy's impressionistic *Reflets dans L'Eau*, in which he makes use of his favorite chords of the ninth and thirteenth, and also of the so-called "escaped chords" to produce the effect of "washing sounds" above others vaguely visible.

In *The Singing Fountain* by Walter Niemann, a charming composition in which raindrops spatter on the water, we find not impressionism, but rather, realism.

*The Fountain* by Arensky is a mood picture in this Russian composer's most alluring style.

There are innumerable illustrations I might use, but I think this will suffice. It seems evident that we can find music in nature—whether it is a running brook, a great river, or the vast ocean: all these are sources from which inspiration may flow.

#### • • TREASURE CHEST • •

A rare white Madagascar orchid, *Angraecum sesquipedale*, is preserved for study in the Herbarium at the Carnegie Institute. The Greek antecedent of the second part of the name, implying foot-and-a-half, refers to the long, slender nectar spur which sometimes grows to that length although this preserved specimen, grown in a private Pittsburgh conservatory, is only about eleven inches long.

Up to the time when the orchid was shown to Charles Darwin, no pollen-carrying insect with a tongue longer than six inches was known. But, looking at the flower, young Darwin predicted that an insect with tongue long enough to dip into this nectary must exist and sometime would be discovered.

Forty years later such an insect was found and described—a light brown moth with darker brown markings and a five-inch wing spread, having a tongue that unrolls to about ten inches. In collecting the nectar from deep within the orchid, *Xanthopan morgani predicta* R. & J. also gathers pollen which, carried to the next orchid, accomplishes fertilization. Only by this particular insect, which apparently is attracted to this particular nectar, can pollination of *Angraecum sesquipedale* be accomplished. "Predicta" included in the name refers to Darwin's prediction.

The Clark collection of hawk moths at the Carnegie Museum, the largest in this country, includes three specimens of this rare insect, one having its tongue rolled out to full length.

#### WOODLAND PATH



DAILY temperatures this year total more than six hundred degrees above normal and many a May flower bloomed in April. The dainty snow trillium has come and gone, and almost like snow on the hillside are

patches of the large-flowered trillium. On crumbling slopes of the little ravine is the less lovely wake-robin (*Trillium erectum*) with pointed petals—reddish-purple, greenish-yellow, white, or rarely pink—a botanical enigma. On the lowland where the yellow trout lilies bloomed is the sessile trillium with its dull brownish-red flowers perched on the base of the three broad leaves. Here, too, the mertensia swings its clusters of inch-long, trumpet-shaped flowers, first pink, then blue, above its pale green, paddle-form leaves.

As the month moves on and frosts become rare, the tide of green leaves moves up the hillsides and into the treetops. As the shadblush drops its petals, the flowering dogwood flaunts its four, white, petal-like bracts. These surround a central cluster of small, yellowish flowers, and the whole so perfectly mimics a single flower as to fool insects and men alike.

On a sunny May morning the flicker beats out a noisy tattoo from the old, dead treetop and boisterous whistles in a rising and falling sequence, "whet, whet, whet, . . ." The muffled drumming of the ruffed grouse comes from a log somewhere in the woods—just how far away it is difficult to sense—while in treetops up the hill, the crested titmouse calls, "peto, peto, peto."

More than fifty species of wild flowers come and go before the leafy curtains are drawn on the woodland wild flowers along our path.

—O. E. J.

## "ART FOR YOUNG AMERICA"

Reviewed by MARIAN COMINGS  
*Art Librarian, Carnegie Library of Pittsburgh*

**A** book that would charm a boy—well, anyway, some boys—out of playing baseball on Saturday, *Art for Young America* notably demonstrates today's tremendous advance in art education to meet the long unsatisfied yearnings of the urgent early teens.

This junior high school text just published by Manual Arts Press, of Peoria, Illinois, also indicates the trend to make textbooks look like "real" books, for it has the freshness and almost the color of a jonquil in springtime. Perhaps in Pittsburgh one will want to protect that well-designed light cover. Leaf the book through, and the reader will repeatedly notice references to Pittsburgh, for the four authors have found beauty at home as well as abroad.

It is the work of Florence Williams Nicholas, Mabel B. Trilling, and Margaret M. Lee, in collaboration with the late Elmer A. Stephan. Mrs. Nicholas, the chief author, the wife of George N. Nicholas, is the mother of two teenage children. Literally thousands of young and adult Pittsburghers have enjoyed her tours of the galleries at the Carnegie Institute. She was first a public school art supervisor, then, until her marriage in 1927, instructor in art at the University of Chicago and teacher in a practice school. At the Carnegie Institute she has worked under the direction of Miss Lee who, as director of art education since 1923, has also organized the Saturday classes for talented children. In the writing of *Art for Young America*, as in a number of other texts, Mrs. Nicholas has had the collaboration of Miss Trilling, from 1927 to 1945 professor of home economics education at the Carnegie Institute of Technology. There were many conferences with Mr. Stephan, the late art supervisor in the

Pittsburgh public schools. The shortages and priorities of World War II have delayed publication until now, but the book is refreshingly new.

Although of joint authorship, *Art for Young America* is a unit, forthrightly carried through to the end. It speaks to the child about things that already have his interest: airplanes, automobiles, horses, people, trees, his home, town, and countryside, and the woods where he goes for picnics. He is beguiled to an interest in the principles of art: color, harmony and rhythm, proportion and functional form. The child is shown paintings, sculpture, architecture; the story of the Parthenon becomes exciting.

Probably a unique, certainly an important, feature of the text is the suggestion of two types of classroom activities at the close of each chapter: exercises in appreciation for the children with no particular artistic creativeness, and a set of "technical activities" for the more creative.

Thus the book leads from the adolescent's natural interests to art principles. The later chapters, applying these principles, bring him back to his own surroundings by instruction in arranging flowers, pictures, and furniture; by arguments against the billboard desecration of scenery; and, best stroke of all, by a call to stop the sin-against-beauty perpetrated in the strewing of tin cans and paper refuse, and in marking and destroying public property.

Teachers will take the book to their hearts, for here is a course for the whole class, talented or not. And young America will love it.

Pages and proofs showing the make-up of *Art for Young America* are lent by the Manual Arts Press for exhibit in the Art Division of the Carnegie Library this month.

## THE YOUNG IN ART

By WILLIAM DOW BOUTWELL  
*Co-ordinator, Scholastic Awards*



THE National Junior and Senior High School Art Exhibition is the climax of what has become the largest art competition in the world. This year approximately a hundred thousand pieces of student art work—oils and water colors, inks and crayons, sculpture and ceramics, fashion designs and handicrafts—were originally submitted. In thirty-five cities throughout the United States the entries were sifted and critically weighed, with a small percentage of the original group—the best in the various classes—put on public exhibition before being forwarded to Pittsburgh for national judging. Here, some twenty thousand pieces have been considered for the seven hundred special awards which include seventy scholarships for leading art schools, fourteen more than last year. Finally some fifteen hundred, less than 2 per cent of the original group, go on exhibition in the Fine Arts galleries at the Carnegie Institute for three weeks beginning May 12.

Size and numbers are not the only measure of this exhibition. Scholastic Magazines originated the annual art awards in an effort to raise the standard of art education, to awaken and encourage the interest of youth in art, and by means of public recognition, monetary awards, and scholarships to promote further study and work for youths who possess the necessary talent.

That they have stimulated the creative capacities of youth in art is apparent by the huge number of entries

and the estimates of the distinguished artists and educators who served as judges. The judges were particularly impressed with the creative ability, imagination, and versatility of the student artists. They also found technical skill present in abundance. "Many of these youngsters," commented Louis Slobodkin, sculptor and illustrator, "are potential artists. Many are already artists. And some, in my opinion, are geniuses." Mr. Slobodkin went on to say he thought that, after viewing the works of the students, established artists would go home and work harder. "We have to do better work," he said, "after seeing how good they are."

For the first time, entries are divided into three groups in order that students of the same training and age category may compete with others of similar capacities. The judges were particularly impressed with the very youthful artists, students in the seventh, eighth, and ninth grades. Ruth Reeves, fashion



OIL BY TOWNSEND S. HOWE  
 Rahway (New Jersey) High School



PENCIL BY STERLING CURRY  
Allegheny High School, Pittsburgh

expert and designer, was struck by the vivid imagination they brought to their drawing boards and palettes. "They have entirely new ideas, fresh ideas—good ones too," she said. "It is not a case of tricky inventions and bizarre notions. It is true expression of creative imagination."

Applications for scholarships greatly increased this year, rising from 250 in 1945 to 370. Each applicant submits a portfolio of ten or more pieces, varied to show the range of his skill and talent. With these collections before them, the scholarship jury faced a lengthy and discriminating task. If two students seek the same scholarship and have ability along different lines, the difficulty of reaching a decision is obvious. With one artist strong on technique but weak on imagination and another light on technique but with an excellent color sense and obvious creative ability, the jury must consider the relative degrees of merit. Talent is only one criterion. The jury must select an art school where the student can develop along the lines in which he shows most promise. Scholarships are available in fine arts, graphic arts, and design, and the placing of the youthful artist in the proper category calls for careful judgment. Judges also had to match academic and other require-

ments of various art schools to applicants before a student could be awarded a scholarship. Scholastic was fortunate, therefore, in having outstanding jurors on the scholarship committee. Royal Bailey Farnum, of the Rhode Island School of Design; Raymond B. Dowden, of Cooper Union Art School; Otto F.

Ege, of Cleveland School of Art; and James C. Boudreau, of Pratt Institute, were well equipped to balance these many factors. With tireless care, they considered and reconsidered the portfolios, finally eliminating—often reluctantly—the ones which did not quite attain the standards set for this classification. In the end they selected the winners and alternates for the seventy scholarships and were thoroughly satisfied with each choice. "We will be hearing about these young people some day," predicted Mr. Boudreau.

One of the most difficult of all classi-



CRAYON BY HARVEY DINNERSTEIN  
High School of Music and Art, New York City

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fications to judge was the pictorial arts section. Here, an all-inclusive jury of three active artists, a museum director, two educators, and an art critic passed on all types of pictorial arts. It was significant that Homer Saint-Gaudens, director of fine arts at the Carnegie Institute, sat on this jury, for by virtue of his long experience in the selection, purchase, and exhibition of art, he is particularly qualified to bring the judgment of art museums toward youth. As the gradual elimination went on, the jury would sometimes be in unanimous agreement that a work was outstanding. If a painting had one or two enthusiastic supporters but the rest of the judges were lukewarm or actually cold toward it, detailed and lengthy discussions would often ensue. For example, Edmund M. Kopietz, director of the Minneapolis School of Art, believed that one canvas that other judges were prepared to eliminate had qualities which should keep it from being discarded. Admitting its weaknesses, he went on to point out that the impression of action was so well conveyed and the detailed perception of surroundings so acute that the painting deserved recognition. The rest of the judges agreed, and the painting was retained in the exhibition.

This system of personalized judging and critical co-operation characterized the entire program. From time to time one of the judges would halt the proceedings to give his specific reasons for wanting a work considered for an award. Each juror stated his opinions freely. In addition to Mr. Saint-Gaudens and Mr. Kopietz, the pictorial arts jury included Georges Schreiber, William C. Palmer, and Saul Steinberg, artists; Elise E. Ruffini, of the Department of Fine Arts at Columbia University; and Louise Bruner, art critic of the *Cleveland News*.

Commercial art also received careful evaluation. Here again the judges were enthusiastic about the entries. William L. Longyear, of the department of advertising design of Pratt In-



WATER COLOR BY JOHN CLAGUE  
John Hay High School, Cleveland, Ohio

stitute, who judged the advertising art together with James C. Ewell, of Ewell and Thurber Advertising Associates, expressed particular admiration for the work of a seventeen-year-old student. "That is professional," he commented. "She could get \$100 a week with almost any advertising agency in the country." The work of many others, they agreed, rated very high.

Reactions of the judges indicate that the paintings are worthy of the honor bestowed upon them by exhibition in the Carnegie Institute. The fact that distinguished members of the Carnegie staff serve as active judges and co-operate in every way with the Awards program heightens the importance of the exhibition, both to art and education. By bringing the inherent artistic talent of American youth to public attention, by having their works judged by eminent artists and educators, and by helping them on the road toward future art study, Scholastic Awards give the youthful artists the incentive and wherewithal to make their way in the art world.

Further, the advantages to students



CERAMIC BY BETTY WHITE  
The Andrews School, Willoughby, Ohio

CERAMIC BY MARION PECK  
McLean Junior High School, Fort Worth, Texas

WOOD CARVING BY GEORGE ROSS  
Woodrow Wilson Junior High School, Des Moines, Iowa

who will not continue with art as a career are numerous. Mass participation in artistic work, contact with more accomplished artists, and exposure to the art field engender an appreciation of art which adds immeasurably to the cultural background of many thousands of boys and girls. In regard to exposure to the art field, it should be noted that even those who have no opportunity to view the exhibition in Pittsburgh may profit from its lessons. Scholastic Magazines make Kodacrome slides of award-winning pieces and circulate them widely through the country's schools.

In addition to the advantages to the talented, there are other more general social gains. The Scholastic Awards serve not only as an encouragement to budding artists but as cultural improvement for youth who go on to other fields.

Because of the important influence Scholastic Art Awards have on both the students and the schools, state and city art directors have been among the strongest supporters of the program.

They have stimulated interest in the schools in their areas, they have co-operated with the store sponsors in developing regional exhibitions, and they have served as judges in regional and national competitions.

Virginia Murphy, supervisor of art education for New York Public Schools, has long been active in the program and this year served as chairman of the national committee. She sat on the preliminary

jury with Mary

Adeline McKibben, senior supervisor of art for Pittsburgh Public Schools, and C. Edwin Johnson, director of art, Cincinnati. Other juries included Valentine Sarra and Tom Maloney for photography; Cy Hungerford, of the *Pittsburgh Post-Gazette*, and Saul Steinberg for cartooning; four industrial art educators—Frank Moore of the Cleveland Public Schools; Harry M. McCully, of the Carnegie Institute of Technology; Burl Osburn, of Pennsylvania State Teachers Colleges, and Clyde Bowman, of Stout Institute; one editor, George Fern, of *American Vocational Journal*, for handicrafts and mechanical drawing.

Serving with Mr. Slobodkin on the sculpture and ceramic-sculpture jury were Janet de Coux, who now has an exhibition of her works at the Carnegie Institute, and Joseph Bailey Ellis and Frederick C. Clayter, both of Carnegie Tech. With Miss Reeves judging design, textile decoration, and needlework were Helena Barbieri, New York fashion designer, and Augustus Peck, of the Brooklyn Museum Art School.

## IN TRUST FOR THE FUTURE

*A museum research collection; what and why*

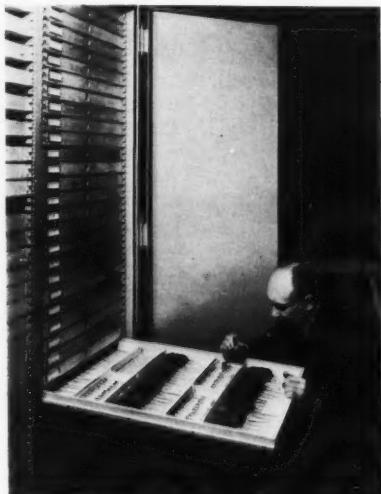
By J. KENNETH DOUTT

*Curator of Mammalogy, Carnegie Museum*

MODERN civilization, ushered in by the mechanical age, is apt to view the world from a seat in a sky liner rather than from behind a horse-drawn plow. This abstract view of life tends to make the man of today singularly unconscious of his place in the natural universe. We forget that our steak does not originate in the butcher shop, and that milk is not manufactured in the bottles we buy.

Until recently man has looked upon the other mammalian species with which he shares this planet as something to be used or destroyed as he chose. His recognition of "wild animals" as useful associates has come so recently that the concept is only a vague realization. Mammals, of course, are the group of animals most closely related to man and are, in fact, the group to which man himself belongs.

Actually, mammals play a role of ever increasing importance in the modern world. The livestock industry is greater than ever. Wild-caught furs can no longer supply the demand, so scientifically managed fur farms have sprung up throughout the country. There are more dogs and cats in the United States than ever before; also there are more rats and mice! The astronomical figure of



Mr. Doutt examines study specimens arranged systematically in a dustproof metal case.

and experiments, and thus they aid in the cure of human disease.

A need for knowledge about the many different phases of man's relationship to the mammals has produced a wide variety of studies which have grown into such specialized sciences as taxonomy, anatomy, physiology, genetics, and ecology. Here at the Carnegie Museum we are concerned primarily with taxonomy, ecology, and anatomy. This Museum, like most other large museums of its kind, has two major functions. The first, or most fundamental, is pure research; that is, studies by which we gather new information and achieve a fuller understanding of nature and the laws which govern life. The second function, which naturally follows, is that of presenting this new information

\$2,500,000,000 is the sum paid by the citizens of the United States each year to support our population of house rats. This unwelcome, disease-carrying pest, brought here inadvertently by the old sailing ships, is closely associated with man and is seldom found far from human habitation. Yet even this loathsome creature is not an unmitigated evil. Thousands of them are used each year for medical tests

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to all who are interested in acquiring it.

Our mammal collection, one of the large collections of this country, contains nearly 25,000 specimens. These specimens are an essential part of our research equipment—the tools with which we work. In fact each specimen is like a rare book and must be preserved as carefully as a unique and valuable volume in a library. Actually the resemblance of a natural history collection to a library goes even further, for each animal is numbered, catalogued, and filed in its proper place. A single specimen in itself is of value, to be sure, but its greatest value is achieved only when many other specimens from many different localities are assembled with it. For this reason, a study collection of this kind increases in value not just numerically but in a geometrical ratio. As the collection grows, each individual acquires a greater significance.

On our expeditions we collect specimens, take photographs of the animals and their habitats, and record in our notes all the information we can gather. This material is then brought to the laboratory, where it is assembled, to-

gether with additional specimens and all pertinent literature, and is then subjected to critical analysis. The new information gained from these studies is presented in various ways—in technical and popular publications, lectures and exhibits in the public galleries.

Visitors to the laboratory often ask me why we need so many specimens. The general impression seems to be that three or four of a kind would be sufficient. But that is not enough. Let us suppose, for instance, that a being from Mars came to earth on a collecting expedition, and saw many queer creatures walking about on their hind legs. He snatched up one of these, flew back to Mars, and sat down to write a description of the human race. His specimen may have been a short, fat man or a tall, skinny one; a very old man, bent and wrinkled with age, or a young man in the prime of life, or perhaps a child of only eight or ten. Again, he may have collected a Norwegian, an Italian, a Negro, a Chinese, an Eskimo, or an Indian. By chance his victim might have been a woman rather than a man! From this one individual it is obvious that he would not be able to write an accurate description of the human race. Had he taken the trouble to collect ten adult males, ten adult females, and ten young of various ages, from each nationality, he would have been able to write a fair account of the physical features. This, however, would have necessitated collecting thirty specimens of each nationality—or subspecies—and thus his collection would have numbered several hundred specimens.

A race, subspecies, or nationality, is developed through isolation. When a group of people drift into a new area and then lose contact with other members of their kind, they soon become provincial. That is, they develop a way of speaking peculiar to them, they become interrelated, and they come to resemble one another in appearance. The Spaniards in Spain, the Italians in Italy, the French in France, and many others are good examples of this. These



The assistant curator compares a study skin with a mounted specimen.

countries each have natural boundaries, which have, in the past, acted as barriers and prevented the inhabitants from mingling to any extent with those of other nations. Of course modern means of communication and transportation are rapidly altering all this, but the same laws which act to make a subspecies of mammal have also acted to develop new races of mankind. It is obvious that the small mammals, such as mice, moles, squirrels, wood-chucks, and skunks, are restricted even more easily than man. Since they are unable to travel any great distances, natural barriers like rivers, mountains, and lakes confine them in small areas where they develop local races. The number of these local races is great, and if one were to collect ten adult males, ten adult females, and ten young of various ages, or thirty of each species, it is evident that the number of specimens required would be enormous.

I am often called upon to explain why we have to go so far from home to study mammals. Many of our experiments cannot be conducted in the laboratory because they involve vast areas of space and natural barriers, including perhaps climatic changes. Many of the problems involve long periods of time, sometimes thousands of years. It would naturally be impossible to set up in the laboratory experiments involving such factors as these and, on first thought, such experiments would seem impossible. However, by examining carefully the physical features on the face of the earth, we can often find places where natural forces have already provided all the conditions for the



Research requires many hours of painstaking study.

experiment. In one case, for example, a group of seals has been isolated in a fresh-water lake in northern Labrador for thousands of years. By going to this lake to study conditions and to collect specimens of these seals, we were able to look in on a remarkable experiment in isolation already in progress for about five thousand years. The migration of animals is another problem that has long been of interest to biologists. What effect has a large mountain mass on the distribution of animals? To study these questions, we must go where the experiments have already been established by natural forces.

I have previously referred to the fact that one function of the museum is pure research. Technological developments based on scientific discoveries have made the civilized world more and more aware of the contribution scientific research has made to our progress. Realizing the part science played in World War II, President Franklin Delano Roosevelt asked Dr. Vannevar Bush, Director of the Office of Scientific Research and Development, to prepare a report outlining means by which the accelerated tempo of scientific progress could be continued after the war.

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The report presented by Dr. Bush was a long and masterful survey of the subject and has attracted wide attention. In speaking of the value of science he says:

. . . Without scientific progress no amount of achievement in other directions can ensure our health, prosperity, and security as a nation in the modern world.

Pure research is research without specific practical ends. It results in general knowledge and understanding of nature and its laws. This general knowledge provides the means of answering a large number of important problems, though it may not give a specific solution to any one of them. The pure scientist may not be at all interested in the practical applications of his work; yet the development of important new industries depends primarily on a continuing vigorous program of pure science.

One of the peculiarities of pure science is the variety of paths which lead to productive advance. Many of the most important discoveries have come as a result of experiments undertaken with quite different purposes in mind. Statistically it is certain that important and highly useful discoveries will result from some fraction of the work undertaken; but the results of any one particular investigation cannot be predicted with accuracy.

The unpredictable nature of pure science makes desirable the provision of rather special circumstances for its pursuit. Pure research demands from its followers the freedom of mind to look at familiar facts from unfamiliar points of view. It does not always lend itself to organized efforts and is refractory to direction from above. In fact, nowhere else is the principle of freedom more important for significant achievement.

The study of mammalogy lies primarily in the field of pure science, but more and more frequently this knowledge is finding practical application. During the past year I spent nearly six months on the northeastern coast of Hudson Bay. In April and May, lemmings were very abundant but as spring advanced, they began to die off. The cause of their death is one of the many unsolved mysteries of the Arctic, but when the snow was finally gone dead lemmings were found everywhere. The white foxes and snowy owls depend largely on these small, mouselike mammals for food, and it was obvious that, with the vanishing food supply, the foxes and owls would have to migrate. From our observations in the region about Povungnetuk we predicted that the white foxes and owls would migrate

southward; that the catch of white foxes in that area would dwindle to almost nothing shortly after freeze-up; and to the southward, the catch would be better than usual. Reports from the Hudson's Bay Company posts have substantiated our predictions. The snowy owls have already reached New York, Pennsylvania, and Ohio, and their depredations on the small game will undoubtedly be felt this year. It seems incredible at first, but experience indicates that the fluctuation of small rodents in a remote section of northern Canada, fifteen hundred miles north of Pittsburgh, has an important bearing on the fur trade of eastern Canada and on the supply of small game as far south as Pennsylvania. It is also evident that until recently we have overlooked many of the fundamental problems of mammalian ecology which involve such things as our game and fur supply, pest control, animal-borne diseases, and the like. With this realization is coming an understanding of the necessity for studies of this kind.

The layman often looks upon science in an abstract way, almost as though it were a kind of magic lamp which if rubbed the right way will produce strange and wonderful things of almost any kind or amount. The feeling also exists that research is being conducted by a vast army of scientists, supported by inexhaustible funds. Unfortunately there is no magic about research, nor are the funds inexhaustible. New facts are learned only after many tedious hours of study and investigation; and the number of people engaged in many of the specialized branches is surprisingly small. For example, in all of North America there are less than twenty museums carrying on research similar to that conducted here at Carnegie, and in no instance is there any real duplication. The failure of any one of these organizations to function impedes progress by just that much. Each research collection is a vital cog that meshes into the gears of all biological research.



## THE GARDEN OF GOLD

We have had so many occasions to gratefully acknowledge great and generous gifts to the Carnegie Institute of Technology 1946 Endowment Fund that it sometimes seems as though those were all the gifts that come to the various Carnegie enterprises. It is a pleasure therefore to have occasion to call attention to other donations.

Dr. Matthew T. Mellon, who in the past has made contributions to the work of the Carnegie Museum, in which he is very much interested, has recently sent \$3,000 to finance the ornithological expedition to the northern Bahamas, on which Dr. Arthur C. Twomey of the Carnegie Museum left early last month.

It will be remembered that Mr. T. A. Mellon financed an expedition last year to British Columbia, and in anticipation of the cost of a further expedition in this area during the coming fall he has sent \$1,000 to cover the preliminary expenditures.

Childs Frick, another loyal friend of the Carnegie Museum, has recently sent \$1,500 to advance the work of the Section of Vertebrate Paleontology during the 1946 season.

From Frank W. Preston, of Butler, has come \$200 for work of the Museum.

March gifts for the 1946 Endowment Fund of the Carnegie Institute of Technology total \$1,688.50.

R. J. Brockner, I'17, gives \$100 for the Stewart L. Brown Memorial Scholarship Fund.

W. Carl Winning, E'26, has sent four United States Savings Bonds of cash value \$296, to be earmarked later.

In addition to these larger gifts, various contributions during March of less than \$100 each totaled \$992.

The Bland Printing Company, of Detroit, in March sent \$100 for the Department of Printing Scholarship Fund, and Anthony F. Maday, of the same firm, also gave \$100. These two gifts

bring the grand total contributed for the Printing Endowment Fund to \$190,584.50 to date.

The campaign among printing firms conducted since November 1944 under the chairmanship of Glen U. Cleeton, director of the Division of Humanistic and Social Studies at Tech since 1944 and head of the Department of Printing from 1935 to 1945, seems deserving of a summary at this time.

Four scholarship funds have been established by large initial gifts: the Joseph T. Mackey Scholarship Fund, founded by gift of \$20,000 from the Mergenthaler Linotype Company, of Brooklyn; the George H. Judd Printing Scholarship Fund, by Judd & Detweiler, Inc., of Washington; the United States News Publishing Corporation and Bureau of National Affairs Scholarship Fund, established jointly by the two named organizations, of Washington; and the Thomas P. Henry Printing Scholarship Fund, by Thomas P. Henry, Jr., of Detroit—the last three each established with gift of \$5,000.

In addition to these four Funds, a total of \$14,909.50 has been given to the Department of Printing Scholarship Fund, and \$15,675 to the Printing Research Fund. Endowment Funds allocated to the Department also include \$125,000 given during the period 1927-1933 by the United Typothetae of America, the income from which is to support a professorship in printing. More than one hundred firms and ninety alumni have contributed.

The total contributions for the Carnegie Tech Endowment Fund reached the vicinity of \$3,900,000 as of March 31, with three months still to go. The Carnegie Corporation of New York stands pledged to an additional \$8,000,000 when the sum of \$4,000,000 has been contributed for the 1946 Endowment Fund by June 30, 1946.

## "THE PLAY'S THE THING"

*A Review of the Department of Drama's  
Presentation of "The Merchant of Yonkers"*

BY AUSTIN WRIGHT

*Acting Head, Department of English, Carnegie Institute of Technology*



THORNTON WILDER's *The Merchant of Yonkers*, a farce with philosophical trimmings, was offered to Little Theatre audiences by the Department of Drama in March, and though the verdict was not universally favorable, most people who saw the production found it highly enjoyable. We are told by Mr. Wilder that he based the play upon a Viennese comedy of 1842, which in turn was based upon an English play entitled *A Well-Spent Day*. I know nothing of these two sources, but it is certain that, whatever the immediate original of *The Merchant of Yonkers*, it stems in spirit from a very early tradition indeed. With its absurd plot, its cardboard characters, its disguises and coincidences and mistaken identities, it is full of echoes from the comic material of the theatre of Molière and Shakespeare and Plautus and Aristophanes.

Mr. Wilder elects to lay his scene in the bucolic Yonkers of the early 1880s, thereby making possible the introduction of some amusing burlesque of Victorian modes and manners and inducing in the superior modern audience a willingness to accept practically any absurdity as in keeping with the ridiculous age in which our grandparents and great-grandparents lived.

Horace Vandergelder is a well-to-do Yonkers merchant in the "hay, feed, provision, and hardware business."

Having progressed from the foolishness of youth and marriage-for-love, and the even greater foolishness of poverty, to the wisdom of sixty and the enviable status of a wealthy widower, he is inclined to risk a little security for a certain amount of adventure and hence, appropriately enough, is contemplating matrimony. In order to find just the right young woman, he enlists the aid of Mrs. Ephraim Levi, nee Dolly Gallagher, a buxom widow who enjoys arranging things for her fellow mortals and profits by certain little pickings that fall to her share as by-products of the enterprise. The not-so-little picking she has her eye on this time is Horace himself. She gets what she wants, of course, but not until after a complicated series of incidents revolving about Vandergelder's down-trodden clerks, Cornelius Hackl and Barnaby Tucker, and his timid niece Ermengarde and her artist-lover, Ambrose Kemper. Cornelius and Barnaby take advantage of Vandergelder's courting trip to New York by slipping off with the determination to have one day of glorious adventure in the city. To escape an encounter with their employer, they take refuge in the millinery shop of Mrs. Irene Molloy, who turns out to be the object of Vandergelder's attentions. Meanwhile the not exactly disinterested Mrs. Levi has taken into her prudent hands the management of the romance between the whimpering Ermengarde and her distraught Ambrose, and after a hilarious scene in Mrs. Molloy's shop and another in the Harmonia Gardens Restaurant, the paths of all the principals lead miraculously to the home of Ermengarde's

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spinster-aunt and all-round reconciliation.

Part of the time *The Merchant of Yonkers* is a gay, fast, witty farce which keeps the audience amused and interested in the tangled affairs of the characters, but there are stretches when the fun lags, and the play is undoubtedly far too long. The first act in particular is tedious, with forty minutes of dialogue which drags sadly until the entrance of Cornelius and Barnaby, a few minutes from the end. Here and there throughout the play the humor is strained to the breaking point, and one thinks of Jeffrey's famous condemnation of Wordsworth's *Excursion*: "This will never do." It would be unjust to say that the play as a whole is a failure, for the good parts are so successful that the spectator develops tolerance for the dull episodes, and the evening, though long, is full of fun. But the brevity of the New York run, thirty-nine performances in 1938-39, may be called a fair index to the worth of the play.

Henry Boettcher showed ingenuity and a keen insight into the secrets of comedy by his clever direction. The stage business was invariably successful, and except perhaps for a few bits of

slapstick in Act III the actions of the players were never allowed to pass the bounds of exaggeration permissible in farce. Several times in a comic scene the actors failed to carry the audience with them, but this was because Mr. Wilder's lines and situations were simply not as funny as the author thought. The trick of having one element of each set placed before the front curtain by a pair of footmen not only served to bring the action closer to the audience but aroused anticipatory interest in what was to follow. The gaudy settings designed by Milton Howarth were brilliantly suggestive with a minimum of properties and added subtly to the air of good-natured, tongue-in-cheek railing which ran through the production. The backdrops for the hat store and restaurant scenes were particularly successful and showed imagination and humor on the part of the designer. The costumes played no insignificant part in the production, for not only were they sometimes beautiful and sometimes gloriously absurd and always striking, but they became part and parcel of the characters who wore them.

Though *The Merchant of Yonkers* provides a full share of entertainment for the audience, it is even more fun for the



STUDENT ACTORS IN A SCENE FROM "THE MERCHANT OF YONKERS"

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players. I am sure that the young actors and actresses who scampered gaily through the hilarious sequences enjoyed themselves hugely both in rehearsal and in performance. They flung themselves into the play with a spirit which never flagged even when the lines and situations hardly justified their enthusiasm. In both casts the players handled effectively the "asides" which occur once in each of the four acts. These long speeches hold up the action, it is true, but they are witty and wise, and they establish a bond between players and spectators which increases the sense of intimacy that invests the whole play. The exuberance of the players and the warming philosophy of Mr. Wilder sent everyone from the theatre in a tolerant, mellow mood, persuaded that, in the words of Cornelius and Mrs. Molloy, "the world's full of wonderful things."

There were so many capital performances that I know I shall reach the foot of the page before having an opportunity to comment upon all of them, and for fear that the minor roles will be sacrificed as usual, I shall reverse the normal procedure and speak a word right here for the Minnie Fay of the first cast, who got far more than her share of laughs by her delightfully comic way of speaking her few lines; for the almost speechless but nevertheless memorable waiters, Rudolph and August; for the sullen cabman and the gigantic cook; and for both Miss Van Huysens, particularly the first, who made much out of a small part by her skillful rendering of the half-ridiculous, half-pathetic ponderings of the bemused old lady on the delusions of existence and "the story of my life."

The first Horace Vandergelder seemed ill at ease in the early scenes on the night on which I saw his performance, whereas the second was obviously at home in the role and handled with perfect self-possession the important speech of Horace to the audience in Act I. The first Mrs. Levi dominated every scene in which she appeared, and though her

performance was perhaps a little loud, she frolicked through it with a gusto which was infectious and with a confidence and a sureness of touch quite professional. The first Cornelius Hackl gave a quieter, more conventional performance than the second, who abounded in clever, clownish mannerisms that gave immense vitality to the part. Barnaby Tucker was a favorite of the audiences, and justly so, for though his acting could by no possibility be called subtle, he was as funny in appearance and speech as any comic character that has been presented in the Little Theatre in years. Both Ermengardes were a tribute to shrewd direction and intelligent acting—if "intelligent" is the proper word to use in reference to the languishing, yammering, hare-brained Ermengarde, who elicits from the enamoured but exasperated Ambrose Kemper the most violent and impassioned line in the play: "I could choke her!" The actor who played Ambrose was quietly amusing in a neutral role. The first Mrs. Molloy was charmingly vivacious and attractive, whereas the second gave emphasis to the comic elements of the role and thus made a good foil for the clownish Cornelius of the second cast.

Melchoir Stack, the ingratiating, sardonic, and philosophical sot who at fifty becomes Mr. Vandergelder's apprentice and performer of odd jobs in the chicanery line, was almost my favorite character among a host of pleasant acquaintances. The first Stack chose to play the part in a solemn manner. He was world-weary, mournful, gloomily resigned to the disappointments of life. The second Stack was rather debonair, cheerful, inclined to make the best of things though not too hopeful about them. Both performances were excellent, and it would be difficult to choose between them. One thing, however, is certain: no one who saw the Tech production of *The Merchant of Yonkers* will soon forget Stack's alcoholic-philosophical warning to confine oneself to "one vice at a time."

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### THE EDITOR'S DESK

Spring in Pittsburgh wins a certain tribute from Virgil Thomson, composer and music critic, who spent an April week end here. On his return to New York, he wrote in the *Herald-Tribune*:

"And spring in Pittsburgh, with trees and grass picked out in baby-leaf green against the blackened violet that is the city's tone, is not without a certain poetry."

\* \* \*

"Weed 'em and reap" advises the poster above a table of seed catalogues in the Technology Department of the Library.

\* \* \*

J. Kenneth Doutt's article, "In Trust for the Future" in this issue of CARNEGIE MAGAZINE appears simultaneously in the *Pennsylvania Game News*.

Caroline Heppenstall, assistant curator of mammalogy, is currently writing a series of articles in the same publication on small mammals of this region. She has discussed the beaver, bat, mole, shrew, and mouse.

\* \* \*

The words of Ramon y Cajal, distinguished Spanish neurologist who died a decade ago at the age of eighty-three, are quoted in the new magazine *Holiday*, Vol. 1, No. 1, in an article by Morris Fishbein of the American Medical Association:

"The sun, the open air, silence, and art are great physicians. The first two are tonics for the body; the last two still the vibrations of sorrow, free us from our own ideas—which are sometimes more virulent than the worst of microbes—and guide our sensibilities toward the world about us, the fount of the purest and most refreshing pleasures."

\* \* \*

From an address by the Reverend Robert I. Gannon, S. J., president of Fordham University, at the seventy-fifth anniversary luncheon of the Metropolitan Museum in New York City as reported by *Art News*:

"You probably remember the great gentleman and scholar of the ninth century, Lupus, the old Abbot of Ferrières. In his study of literature he was struck, as many have been since, by the recurring cycles of greatness, first in Greece and then in Rome, and coined a happy phrase to describe the phenomenon. He called it 'the growing green again of letters.'

So, too, after a few hours in this Museum, this Temple of the Muses, we begin to sense that power of resurrection in the affairs of men, that spirit of eternally recurring spring. We begin to believe that in spite of all evidence to the contrary, men even today in the Atomic Age can achieve new heights of culture and morality, though the culture and morality will not be new. Enduring humanism and eternal religion will merely be growing green again."

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